

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number:	14-309
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PROJECT INFORMATION

Project Title: Silver Creek Wildlife Water Catchment Development

Region and Game Management Unit: Region 3; Game Management Unit 15D

Local Habitat Partnership Committee (LHPC): <ul style="list-style-type: none"> • Kingman HPC 	Was the project presented to the LHPC? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
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Has this project been submitted in previous years? YES☐ NO☒
If Yes, was it funded? YES☐ NO☐ → **HPC Project #:**

Project Type: Wildlife Water Catchment Development

Brief Project Summary: The Department and cooperators propose to develop a new water catchment in the Black Mountains in Game Management Unit (GMU) 15D. The primary purpose of this catchment is to provide a permanent water source for desert bighorn sheep. This location was identified in a critical water analysis of the Black Mountains as being the last large suitable remaining block of non-wilderness land within the mountain range without permanent water. The proposed site is located in the Hardy Mountain area, approximately 4 miles Northeast of Oatman, in Mohave County. The plant community occurring at both of the sites is Mohave Desert Scrub Type (Brown and Lowe).

BLM has completed an EA and determined the development of the catchment would have no significant impact on biological or cultural resources.

Big Game Wildlife Species to Benefit: Desert bighorn sheep

Implementation Schedule (Month/Day/Year):

Project Start Date: October 2014

Project End Date: December 2016

Environmental Compliance:

NEPA Completed: Yes, FONSI signed 9/4/2014.

Projected Completion Date: N/A

State Historic Preservation Office - Archaeological Clearance:

YES☒ NO☐

Projected Completion Date: _____

Arizona Game and Fish Department EA Checklist: N/A☐

To be Completed by: Joe Currie, AZGFD

Projected Completion Date: Dec 2014

PROJECT FUNDING

Special Big Game License Tag Funds Requested: \$46,210

Cost Share or Matching Funds:

Total Project Costs: \$46,210

PARTICIPANT INFORMATION

Applicant (please print):
Brittany Oleson AGFD

Address: 5325 N. Stockton Hill Road
Kingman, AZ 86409

E-mail: boleson@azgfd.gov

Telephone: (623)252-8700	Date: September 4, 2014
AGFD Contact and Phone No. (If applicant is not AGFD personnel):	
Project has been coordinated with: AZGFD- Luke Apfel, Brittany Oleson, Deanna Kephart, Trevor Buhr, Jeff Pebworth, Joe Currie BLM- Rebecca Peck, Tim Watkins	

NEED STATEMENT – PROBLEM ANALYSIS:

The Department and cooperators are proposing to develop a new wildlife water catchment. The primary purpose of this project is to provide reliable and permanent source of water for Bighorn sheep in the Black Mountains in GMU 15D. Desert bighorn sheep and Mule Deer would benefit from this development, as well as other native mammals, birds, herpetofauna, and invertebrates. Currently large tracts of the Black Mountain range are without perennial water sources due to change in climate (drought) the closest perennial water is approximately 4 miles away. A water analysis was completed for the Black Mountains and this location is within the largest remaining block of non-wilderness land without permanent water. Installing this water catchment would improve the permanent availability of approximately 4,500 acres (1.5 mile buffer) to wildlife that currently can only be utilized seasonally when precipitation events occur.

PROJECT OBJECTIVES:

The Department proposes to construct a wildlife water development to create a permanent year-round water source for wildlife. It is the objective of the Arizona Game and Fish Department to reduce the effects of drought and thermal stress on game species and other wildlife by constructing, redeveloping and maintaining wildlife water developments. The Silver Creek Wildlife Water re-development would provide a much needed water source for a number of species of wildlife with a specific emphasis on desert bighorn sheep. This area was determined in a comprehensive water analysis completed for the *Black Mountains Bighorn Sheep Management Plan* to be the largest block of non-wilderness land without a permanent water source. Bighorn sheep lambing has been detected near the project site and this water will provide a permanent reliable water source for ewes which is necessary for good lamb survival.

PROJECT DESCRIPTION AND STRATEGIES:

The proposed project would require use of a helicopter for transportation of materials to the site. Silver Creek water catchment (#805) would consist of installation of storage tanks, apron, trough, and pipeline consistent with the Arizona Game and Fish Department Wildlife Water Development Standards Document. This would be accomplished by the performing the tasks below.

- 1) An 18' wide by 35' long pad/hole would be dug by hand (if soil conditions permit) up to 4.5' deep for placement of three 2,500 gallon polyethylene storage tanks. If large boulders, bedrock, or other conditions prevent digging the hole to the desired depth, the tank may only be partially buried or placed above ground.
- 2) Installation of a 24' wide by 84' long metal precipitation collection apron over the tank hole.

- 3) If soil conditions permit, a 3' deep by 4' wide by 8' long hole for the polyethylene walk-in trough would be dug. If large boulders, bedrock, or other conditions occur the trough may only be partially buried.
- 4) If soil conditions permit, a trench approximately 4 to 5 feet deep and 40 to 60 feet long would be dug for placement of the pipeline leading to the trough from the tank.
- 5) The soil and rock from tank excavation would be spread within the enclosure fencing to match existing landscape contour.
- 6) Within the perimeter of the disturbed area, by hand construction of a welded wildlife friendly piperail enclosure fence would be assembled of approximately 600 lineal feet.

PROJECT LOCATION:

Silver Creek Catchment #805- Township 19 North, Range 20 West, Section 6

LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name):

Bureau of Land Management (BLM) owns the land at the catchment site.

IF PRIVATE PROPERTY, IS THERE A STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?
YES[] NO[]

HABITAT DESCRIPTION:

The Silver Creek catchment is located on the western edge of the black mountains within the Mohave desert scrub habitat type. Creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*) are common and mixed with shrubs such as Nevada jointfir (*Ephedra nevadensis*), salt bush (*Atriplex* spp.), brittlebush (*Encelia* spp.), spiny menodora (*Menodora spinescens*), white burrobrush (*Hymenoclea salsola*), desert-thorn (*Lycium* spp.), spiny hopsage (*Grayia spinosa*), littleleaf ratany (*Krameria erecta*), and Mormon tea (*Ephedra viridis*).

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

Helicopter transport fees: \$20,000

For the catchment: \$ 9,960.33 total

3 – 53" deep X 8' wide X 13' long Polyethylene Water Tanks = \$3,320.11 each

1 – 4' Polyethylene Walk-in Standard Trough = \$ 4,075.00

1 – 24' Polyethylene Gutter = \$ 925.00

24' X 84' Apron Package = \$ 6,500.00

78 – 24' x 3 5/8" 16ga. Metal Studs

10 – 24' x 3 5/8" 16ga. Metal Track

25 – Cold roll channel lock for studs

32 – 24' x 36" Tan 26ga. R-panel

1500 – 5/16” Hex head x 1” #10 self-drilling screws w/ neoprene washer
50 – 5/16” Hex head x 1 1/2” #10 self-drilling screws w/ neoprene washer
15 – 2” X 20’ Steel Square Tube

Plumbing Materials = \$ 1,050.00

120’ (6sticks) – 3” Sch. 80 PVC Pipe
12 – 3” Sch. 80 PVC MPT to slip adapters
8 – 3” Sch. 80 PVC 90° EL slip x slip
2 – 3” Sch. 80 PVC 45° EL slip x slip
2 – 3” Sch. 80 PVC 22.5° EL slip x slip
3 – 3” Sch. 80 PVC Couplers slip x slip
2 – 3” Sch. 80 PVC Tees slip x slip x slip
1 – 3” Sch. 80 PVC Bulkhead Fitting (For Trough, Shipped Separate from Trough) = cost included w/ trough
2 – 3” Brass Ball Valve
2 – Large Irrigation Valve Box
1 – Bag “Blow-in” Insulation

Fence and Support Posts (Standard Piperail Enclosure 600’ lineal feet) = \$3,100.00

27 – 1 1/2” Sch. 40 Black Steel Pipe, Plain End (includes 11 for apron support post)
135 – 1/2” Black Steel Pipe, Threaded and Coupled
140 – Premix concrete 3000psi 60lb. bags (42 bags for apron support post)

Trough and Gutter Materials = \$ 100.00

8 – 12” X 12” Concrete Pavers
1 – Premix mortar 75lb. bags
1 – Tube Lexel Sealant

Miscellaneous Materials = \$ 500.00

Welding Rod
Isopropyl Alcohol
PVC Glue & Primer
Sanding Disk / Wire Wheel
Teflon Tape / Pipe Dope
Caution Tape / Flagging / Safety Caps
Marking Paint / Markers

Total Cost of Wildlife Catchment = \$46,210

Cost Share or Matching Funds

No cost share funds have been allocated to this project as of submittal date.

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

AGFD Development Branch, AGFD Region III, Bureau of Land Management – Kingman Field Office

PROJECT MONITORING PLAN:

Periodic checks will be made by the local Wildlife Manager to ensure that the catchments are functional and holding water properly.

PROJECT MAINTENANCE:

The AGFD development branch will do any maintenance or repairs that need to be completed on these catchments.

PROJECT COMPLETION REPORT TO BE FILED BY:

Brittany Oleson, Wildlife Manger Unit 15D, AZGFD

WATER DEVELOPMENT PROJECTS (*see attached worksheet*):

Attached worksheet

TREE SHEARING (AGRA-AXE, PUSH) PROJECTS (*see attached worksheet*):

Non-Applicable

ARIZONA GAME AND FISH DEPARTMENT **WATER DEVELOPMENT WORKSHEET**

PROJECT NAME: Sugarloaf Catchment Redevelopment

- 1) **Is the water development listed as a priority in the most recent “Wildlife Water Development Annual Implementation Schedule?”**
Yes....Priority for Region III
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**
Joseph Currie, AZGFD March 2014
- 3) **What is the estimated annual inches of precipitation for the area? (mark one)**
☐2-4 ☒4-6 ☐6-8 ☐8-10 ☒10-12 ☐12-14 ☐14-16 ☐ >16
- 4) **Is there a perennial water source available to big game within four miles of this project?**
YES[] (please complete #5 below) NO[X] (skip #5 below) Silver Creek lies 2-3 miles east of the proposed catchment site, but is ephemeral during dry conditions and not readily available for bighorn sheep. The nearest perennial water source is Battleship spring which is approximately 4.5 miles East of this project.
- 5) **For the accessible, perennial water source nearest this project: N/A**
Name of water source: Battleship Spring
Type of water source (catchment, spring, dirt tank): Developed spring (fenced for wildlife use only)
Ownership of water source: BLM
Distance in miles from project: 4.5
- 6) **Is the target wildlife species a result of transplant efforts? YES[] NO[X]**
- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument). If private land, list landowner.**
No special land management status.
- 8) **Please provide the following information about access to the proposed site:**
Type of access (mark one): ☐2x4 vehicles ☐4x4 only ☒foot only**

**If foot access only: Distance in miles: 1 Approximate hiking time: 1hr.

-- Does access to this site require crossing private or tribal lands? YES[] NO[X]

-- Please describe any restrictions to public access:
No restrictions to access, property is BLM.
- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**
 - 1) 3 – 53”deep X 8’wide X 13’long Polyethylene Water Tanks
 - 2) 1 – 4’ Polyethylene Walk-in Standard Trough
 - 3) 1 – 24’ Polyethylene Gutter

- 4) 32 – 24' x 36" Tan 26ga. R-panel – steel
- 5) 8 – 12" X 12" Concrete Pavers
- 6) 1 – Premix mortar 75lb. bags

10) Was a site visit completed? Yes[X] No[]

If Yes, please list personnel that attended and date.

Luke Apfel, AZGFD 02/04/2014

Jeff Pebworth, AZGFD 02/04/2014

Don Martin, ADBSS 02/04/2014

Tim Watkins, BLM 02/04/2014

Rebecca Peck, BLM 02/04/2014

